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PUBLIC HEALTH ADVISORY

TO: New Hampshire Long-term Care Facility Administrators, Medical Directors and Infection Control Practitioners

FROM: Jesse Greenblatt, MD, MPH, New Hampshire State Epidemiologist

DATE: October 13, 2004

SUBJECT: Recommendations for the Prevention and Control of Influenza Outbreaks in Long-term Care Facilities relative to the 2004 Flu Vaccine Shortage

On October 5, 2004, the Centers for Disease Control and Prevention (CDC) was notified by the Chiron Corporation that none of its influenza vaccine would be available for distribution in the US for the 2004-2005 flu season. This will reduce, by approximately one-half, the expected supply of flu vaccine available in the US.

Because of the urgent situation, CDC, in coordination with its Advisory Committee for Immunization Practices (ACIP), has issued interim recommendations for flu vaccination during the 2004-2005 season. These interim recommendations were formally recommended by ACIP on October 5, 2004 and take precedence over earlier recommendations.

Please note there are important changes to the 2004-2005 flu recommendations for those considered "at risk":

- All children aged 6-23 months,
- All adults aged ≥ 65 years,
- Persons aged ≥ 2-64 years with underlying chronic medical conditions,
- All women who will be pregnant during influenza season,
- Residents of nursing homes and long-term care facilities,
- Children 6 months-18 years of age on chronic aspirin therapy,
- Health-care workers with direct patient care, and
- Out-of-home caregivers and household contacts of children aged < 6 months.

Persons who do not fit into one of these risk groups should defer vaccination this year, pending further availability of vaccine. The New Hampshire Department of Health and Human Services (NH DHHS) asks health care providers and the public to maintain strict adherence to the guidelines for vaccinations to assure that vaccine is prioritized to the patients at most risk of severe disease and its complications.

The prevention and control of influenza outbreaks pose an important challenge faced by all long-term care facilities especially when faced with a vaccine shortage. This advisory gives background information on influenza in the elderly and practical recommendations for the prevention and control of influenza outbreaks in nursing homes or other chronic care facilities.

Infection Control Measures:

In addition to influenza immunization, the following control measures are recommended to prevent person-to-person transmission of influenza and to control influenza outbreaks in healthcare facilities:

- Respiratory Hygiene/Cough Etiquette programs should be implemented at the first point of contact with a potentially infected person to prevent the transmission of all respiratory tract infections in healthcare settings. Respiratory Hygiene/Cough Etiquette program includes posting visual alerts instructing patients and visitors to inform health-care personnel if they have symptoms of respiratory infection; providing tissues to patients and visitors to cover their mouth and nose when coughing and sneezing; providing dispensers of alcohol-based hand rubs; ensuring that supplies for hand washing are available where sinks are located; offering masks to persons who are coughing; encouraging coughing persons to sit at least 3 feet away from others; and having health personnel observe Droplet Precautions in addition to Standard Precautions.

Staff-specific recommendations:

- Ill staff should report their symptoms to the Infection Control Practitioner (ICP).
- Ill staff should be encouraged to take time off and should remain home until at least 48 hours after symptoms resolve.
- Give specific attention to "rotating/float" staff (nursing, housekeeping, food service, etc.) that work in more than one institution on a routine basis.
- Health care provider approval to return to work should be considered as needed. Because influenza outbreaks often cause administrative challenges due to staff illness and absenteeism, it can be useful to make plans ahead of time for how to deal with staffing shortages

Resident-specific recommendations:

- Restrict ill residents from using the dining room or common areas. Meals should be delivered to individual rooms.
- Encourage residents and staff to cover their mouths while coughing.
- Follow directions for sanitary disposal of oral/nasal secretions.
- Restrict visitors to ill residents. This recommendation may need to be reviewed on a case-by-case basis based on the visitor's vaccination status and whether they have any symptoms of influenza.

Antiviral Medication

Prophylaxis with antiviral drugs is not a substitute for vaccination. However, even under the best circumstances, institutional outbreaks of influenza may still occur because of the vaccine's variable efficacy in the elderly and because visitors or staff may unknowingly introduce influenza into a facility. Antiviral drugs can be a very effective additional protection for residents during an outbreak in a facility. Four licensed antiviral drugs for influenza are available in the U.S.: amantadine (Symmetrel®) rimantadine (Flumadine®), zanamivir (Relenza®), and oseltamivir (Tamiflu®). The four drugs differ in their pharmacokinetics, side effects, routes of administration, approved age groups, dosages and costs.

Amantadine and rimantadine are related antivirals and are licensed for treatment of influenza A viruses but not influenza B viruses. Our experience suggests that central nervous system (CNS) side effects can be a big concern for administration of amantadine in elderly long-term care residents. Rimantadine is associated with fewer central nervous system (CNS) side effects than amantadine. In addition to rimantadine's lower risk of adverse reactions, other advantages include rimantadine's easier dosage adjustment in patients with renal impairment and less risk of drug-drug interactions.

Two newer agents, zanamivir and oseltamivir are chemically related antiviral drugs known as neuraminidase inhibitors, and are approved for treatment of uncomplicated influenza A and B within two days of symptom onset. Oseltamivir is also approved for prophylaxis. These drugs cause fewer side effects than amantadine and rimantadine and do not appear to adversely affect the CNS.

The majority of published reports concerning the use of these antivirals are based on studies of influenza A outbreaks among nursing home populations where amantadine or rimantadine were used. Less information is available regarding the use of zanamivir or oseltamivir in influenza A or B outbreaks.

Practical Tips for Use of Antiviral Medications:

- Be on the lookout for an influenza outbreak among staff and residents and start chemoprophylaxis as soon as an outbreak is suspected or confirmed. Uncomplicated influenza is characterized by the abrupt onset of constitutional and respiratory signs and symptoms (e.g., fever, myalgia, headache, severe malaise, nonproductive cough, sore throat, and rhinitis). Additional daily monitoring of resident temperatures, symptoms or even wing census figures can give a determination of an increase in cases.
- Obtain pre-approved orders from the residents' health care providers or the facility medical director to avoid delay in starting facility-wide chemoprophylaxis during an outbreak. If this is not possible, have pre-determined plans in place to obtain orders for antiviral medications on short notice.
- Administer chemoprophylaxis to all residents whether or not they have been vaccinated. Antiviral treatment can shorten the duration of illness if it is begun within 48 hours of illness onset.
- Determine the dosage of antiviral treatment or prophylaxis individually for each resident. Consult the drug package insert for further information. Be on the lookout for side effects in residents.
- When an institutional outbreak of influenza occurs, offer chemoprophylaxis to unvaccinated staff, especially those who provide direct care to residents.

If your long-term care facility is trying to determine whether an outbreak is occurring, the use of viral cultures remains critical. The NH Department of Health and Human Services (DHHS) can provide specimen kits for influenza culture so that nasopharyngeal swab specimens can be done promptly at a facility, sent to the Public Health Laboratory (PHL), and culture results obtained as quickly as possible. Please call the NH DHHS to arrange.

The NH Bureau of Communicable Disease Control and Laboratory Sciences staff is always available for consultation and assistance in controlling influenza outbreaks. Please, always report any increase in cases of respiratory or influenza-like illness. Our staff will help you to develop tailored control measures for your facility. During regular business hours, they can be reached at 603-271-4496 or 800-852-3345, ext. 4496. After hours or on weekends, please call 1-888-836-4971, or in case of an emergency, call 603-271-5300 and request the Public Health Nurse on call.

References:

Interim Influenza Vaccination Recommendations, 2004--05 Influenza Season. *MMWR* 2004 October 8, Vol 53 (39): 923-924, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5339a6.htm. Accessed 10-13-04

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